

Clean Energy Partnership Academy Guidelines

DRAFT

7/29/11

Comments due August 12

Send to docket@energy.state.ca.us

Comments will be posted to: www.energy.ca.gov/cleanenergyacademies

Program Summary

The California Energy Commission is adopting these Guidelines for the Clean Energy Partnership Academy in consultation with the Superintendent of Public Instruction (SPI) and in compliance with Senate Bill X1 1, which established the Clean Technology and Renewable Energy Job Training, Career Technical Education, and Dropout Prevention Program.

Program Structure

The Clean Energy Career Partnership Academy will be structured in the same way as the existing California Partnership Academies. Approved school districts will “implement a partnership academy, or...maintain an existing academy, that focuses on employment in clean technology businesses or renewable energy businesses and provides skilled workforces for the products and services for energy or water conservation, or both, renewable energy, pollution reduction, or other technologies that improve the environment in furtherance of state environmental laws.” (SB X1 1)

Background

This section includes:

- The history of the partnership academies established by the California Department of Education (CDE)
- A description of the Green Partnership Academies created by past legislation, AB 519 (Budget Committee, Chapter 757, Statutes of 2008) with funding from the Energy Commission. These academies are a precursor to the Clean Energy Partnership Academies

Legislative Summary and Guideline Authority

The section provides:

- The specific language calling out the authority of the Energy Commission for developing the guidelines.
- A description of the goals of SB X1 1(Steinberg, Chapter 2, Statutes of 2011), which intends to prepare students for careers in energy and water conservation, renewable energy, pollution reduction, and similar areas.

Energy Commission Responsibilities

- A description of the collaboration with the Superintendent of Public Instruction/Department of Education and the Energy Commission and the tasks involved in implementing the requirements of this bill to ensure the clean energy academies are aligned with current energy policies and priorities and provide

skills and education linked to the needs of the clean energy industries. Tasks for the Energy Commission include:

- Consulting with the Department of Education on the release of grant solicitations for prospective academies, 2) program technical assistance and review of partnership academies, and 3) identifying and analyzing deficiencies in the program and preparing an annual report to the legislature.
- Update the guidelines as needed to address changes in the program or the law.

Effective Date of Guidelines

The *Guidelines* will be adopted by the Energy Commission at a publicly-noticed meeting at a date to be determined based on the end of the current legislative session. We estimate this date to **be December 14 if the legislative session ends Sept 9**. The final guidelines will be posted on the Energy Commission website at:

<http://www.energy.ca.gov/cleanenergyacademies/>

Scope of Guidelines

This section will include the proposed parameters for the clean energy academies which include (as examples):

- Alignment with state energy policies.
- Alignment with clean energy career development, including community college programs, university programs, pre-apprenticeships, certificate programs, and other subsequent educational or workforce training.
- Affiliation to local businesses and economic and education workforce development efforts.
- Focus on careers and workforce goals related to energy or water conservation, or both, renewable energy, pollution reduction, or other technologies that improve the environment.
- Provision of real-world experiences including mentorships, internships, etc. in related areas.
- Preparation for students further career or job training in related areas.

State Energy Policies and Priorities

This section outlines the state energy policies and priorities that have bearing on the academies, based on the legislation. These policies are derived from the following documents. For example:

- The Energy Commission's *Integrated Energy Policy Report*
- Governor Brown's Clean Energy Jobs Plan

Definition of “Clean Energy Partnership Academy”

A Clean Energy Partnership Academy meets the general requirements for a career partnership academy under the Education Codes and also promotes the development of career technical education that delivers the skills and knowledge needed for future successful employment in sectors aligning with state policy goals for energy efficiency, renewable energy, and clean technology as well as water conservation and pollution reduction.

Structure of a Clean Energy Academy

- A description of the structure and purpose of this type of academy
- An explanation of how the career technical focus for these academies is determined
- Examples of existing academy models

Suggested Coursework Progression

- 9th Grade - Explore/Set Foundation: Career Options
- 10th Grade - Prepare: Industry Knowledge/Workforce Skills and Knowledge
- 11th Grade - Prepare: Workforce Skills and Knowledge
 - Students are matched with mentors from relevant industries.
- 12th Grade – Prepare: Workforce Skills and Knowledge
 - Experience: Internships
 - Preparation for postsecondary pursuits
- Grades 9-12 – Curricular Integration: Academic and Career Connections, Interdisciplinary Projects

- Other activities: speakers; field trips; career-related events and competitions; etc.

Clean Energy Career Development

Senate Bill X1 1 requires that school districts propose partnership academies that focus on “employment in clean technology businesses or renewable energy businesses and provide skilled workforces for the products and services for energy or water conservation, or both, renewable energy, pollution reduction, or other technologies that improve the environment in furtherance of state environmental laws.”

For the purposes of the Academies, the types of job-related activities that could be included under clean technology and renewable energy businesses as defined in Section 54698.1 of the Education Code will be enumerated in this section.

Alignment with CTE Standards

This section will outline the CTE standards

<http://www.cde.ca.gov/ci/ct/sf/documents/ctestandards.pdf> that may apply to the Clean Energy Academies in the following areas:

- Energy and Utilities
- Building Trades and Construction
- Engineering
- Manufacturing and Product Development
- Agriculture and Natural Resources
- Transportation
- Finance, Marketing, Sales, and Service

Clean Energy-Related Certifications, Credentials, and Resources

This section includes a list of the most relevant certifications and credentials that are recognized nationally or statewide. CTE coursework under the academies should strive to prepare students for obtaining these credentials as a result of further study or career preparation. The concept of stackable credentials will also be addressed in this section.

Examples of the types of certifications are as follows:

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| Building Analyst | Building Performance Institute |
| Air Conditioning Installation Specialist | North American Technician Excellence |

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| Home Energy Rating System Rater | CalCERTS |
| Certified Industrial Maintenance Mechanic | Instrument Society of America |
| Certified Energy Auditor | Association of Energy Engineers |

Some examples of the many relevant resources available include:

- Sustainable Education & Economic Development (SEED)
<http://www.theseedcenter.org/default.aspx>
- Los Angeles Trade Tech Community College (LATTTC)
<http://college.lattc.edu/green/resources-and-tools/>
- PG&E Power Pathway program
<http://www.pge.com/powerpathway/>
- North American Board of Certified Energy Practitioners (NABCEP)
<http://www.nabcep.org>

Clean Energy Occupations and Occupational Outlook

- This section will contain information on research to assist instructors and students in focusing on career pathways in growing fields. Information will be included from a variety of sources, including:
- Bureau of Labor Statistics <http://www.bls.gov/>
- California Workforce Education and Training Needs Assessment
<http://www.bls.gov/>
- Employment Development Department
- Next 10
- California Green Jobs Council
- Brookings Institute

Alignment with Science, Technology, Engineering and Math (STEM)

This section is suggested to include principles of STEM education as it relates to state energy policies and priorities and clean energy partnership instruction.

<http://www.cde.ca.gov/pd/ca/sc/stemintrod.asp>

Academy Selection Criteria

This section will include basic criteria for selection of the clean energy partnership academies consistent with these guidelines.

Informing Students of Clean Energy Principles

This section will include general principles that the academies should strive to include in their overall programs. These principles include building awareness of concepts related to clean energy and the role of energy in society; e.g., energy efficiency and conservation, environmental issues related to pollution reduction, and water efficiency. The academies should also use their facilities as learning environments when possible.

Teaching from the Guidelines

This section provides examples of appropriate curriculum and teaching resources to reflect current state energy policies and priorities, and provide skills and education linked to the needs of relevant industries.

Program Evaluation

This section will identify methods of program evaluation for the clean energy partnership academies. Suggested items for inclusion in this section:

- Annual reports
- Remedial Action for Academies that do not comply with guidelines
- Analysis of data to identify gaps

Academy Professional Development and Support

The section will outline activities and resources available to academy instructors, such as:

- Technical assistance
- Webinars, conferences, workshops
- Best practices collaboration among Clean Energy Partnership Academies (Facilitated by CEC & CDE)

Updates to Guidelines

This will include the input necessary and the process for updating the guidelines.

Appendix I – Senate Bill X1 1